

incorrect entries into the system, a miscommunication between a broker and trader, and the like. These errors can often force a "principal" broker into an unintended position during a trade.

This invention preferably provides ways for the broker to effectively "undo" a trade, either by cancelling a pending order, or rolling-back executions during a trade state. As shown in FIG. 3, the keypad provides CANCEL, DONE, and UNDO keys to facilitate this process. The function of these keys when the system is in a particular state is described below, it being understood that the names given to these keys are arbitrary and any input means can be used to affect the desired action(s).

In the Bid-Offer State, CANCEL functions to remove a maker's existing markets from one or more instruments in this one command stroke.

In the When State, CANCEL functions to remove a maker's markets only if there are no pending active BUY or SELL orders against it. Also, DONE functions to remove a potential aggressor, as well as trade participants, from trading lists before orders are matched.

During the Workdown State, CANCEL functions to remove any remaining passive maker's markets. DONE performs the same function as the CANCEL function and also allows the passive trade participant in the Workdown State to remove themselves from trading lists, thereby effectively removing their committed sizes before the system has had a chance to execute them. UNDO functions to "unroll" the trade and reduce the size shown to customers if executed during a predefined time period after the initial trade. Additionally, the UNDO function proportionally reduces the amount traded by all passive makers. The restriction of a predefined time period discourages one player from taking unfair advantage of this correction facility. Analogously, if more than one trader participated in the trade, then the UNDO function causes the trader to join the contra side for the size desired to be undone. The UNDO function can be invoked at any time by any participant, on the active side or the passive side; the system uses appropriate logic to maintain the fairness of the trading protocol.

During the Workup State, a trader can use the DONE function to remove him/herself from being a participant from the active side or the passive side, or both sides simultaneously, regardless of the size traded or solicited. Thus, the DONE function logically removes the trader from the trade. The UNDO function can also roll back the trade provided that the first active trader has executed this function with a predefined time period following the trade. If the UNDO function is not invoked during this predefined time period, or the trader is not the first active trader, then the trader is entered in the queue to buy or sell on the contra side immediately. Preferably, the trader is placed at the top of the list so that the UNDO function can be effectively invoked immediately, provided there is a contra trader. Most preferably, the rights of the first active and passive traders will be maintained to assure fairness.

Although the invention has been described in detail for the purpose of illustration, it is to be understood that such detail is solely for that purpose and that variations can be made therein by those skilled in the art without departing from the spirit and scope of the invention except as it may be limited by the claims.

What is claimed is:

1. In combination in a data processing system for implementing a structured trading environment for transacting the purchase and sale of select items having a predetermined set of characteristics wherein said data processing system is

operated by a plurality of trading participants through a specific communication platform to permit exchanging positions regarding offers and bids and for receiving select participant trade commands relating to said items, comprising:

a plurality of workstations comprising a display means for presenting to a participant information about pending market conditions as they relate to said items being traded and the select positions taken by other participants in regard to said items;

a central server in communication with said workstations, linked to said workstations and programmed to support a predetermined trading control logic wherein said trading control logic comprises a protocol of trade sequences initiated from a bid/offer state by a participant hit or lift trade command wherein said protocol is directed to implement trade commands from said participants in a predefined way corresponding to the development of a plurality of trade specific states defining the ability of various participants to participate in said trading activity.

2. The trading system of claim 1 wherein said protocol is defined by a stored program comprising a logic structure that defines conditions where a participant becomes a trader and conditions where other participants may participate in a trade.

3. The trading system of claim 1 wherein said participant commands comprise bids, offers, hits and lifts.

4. The trading system of claim 1 wherein said trading states is comprised of a Bid/Offer State and a Workup State.

5. The trading system of claim 4 wherein said trading states further comprise a When State.

6. The trading system of claim 5 wherein said trading states further comprises a Second Look State.

7. The trading system of claim 6 wherein said trading state further comprise a Workdown State.

8. The trading system of claim 1 wherein said display provides a presentation of a bid side and an offer side of a market.

9. The trading system of claim 8 wherein said display further provides information as to the size of uncleared bids and/or offers.

10. The trading system of claim 8 wherein said display further provides a queue of participants organized in groups corresponding to their respective participation on the bid or offer side of the market.

11. The trading system of claim 10 wherein said participant's queue is ordered by time and size of entry.

12. The trading system of claim 11 wherein said queue order is further based on quality of entry in terms of price.

13. The trading system of claim 12 wherein said display provides information regarding the entry of a hit or lift by a participant.

14. The system of claim 1, wherein said item is selected from the group consisting of commodities, securities, indices, and futures contracts.

15. The system of claim 1, wherein said item is a futures contract.

16. A computer trading system for use by multiple participants wherein each participant operates a custom designed keypad for data entry and receives information about market conditions from a display comprising:

a data processor with associated data storage for providing a trading protocol that establishes trading hierarchy among participants;

a trade command input means including said custom designed keypad wherein said keypad includes a plu-

19

ality of trade execute keys, individually assigned to a particular security available for trading, said keypad further comprises a plurality of participant entry keys assigning trade commands to a particular participant;

- a. display means for presenting a trading information profile wherein said trading profile includes pending offers and bids at select price points and size.

17. The trading system of claim 16 wherein said input means provides single keystroke entry for trade cancel command.

18. The trading system of claim 16 wherein said data processor provides for a Bid/Offer State wherein customers' price and size are displayed on said display means.

19. The trading system of claim 18 wherein said Bid/Offer State is terminated by a participant entry of a hit or lift command.

20. The trading system of claim 18 wherein said Bid/Offer State is moved to a "When" State by a non-priority participant's entry of a hit or lift.

21. The trading system of claim 14 wherein said display means presents information on trade transactions and participant access is contingent on a system trading state.

22. The system of claim 16, wherein said bids and offers are indicative of an item selected from the group consisting of commodities, securities, indices, and futures contracts.

23. The system of claim 16, wherein said bids and offers are indicative of a futures contract.

24. A method of financial instrument trading implemented on a distributed workstation computer system, wherein said system provides for a predetermined trading protocol delineating participant access comprising the steps of:

- a. providing a Bid/Offer System State wherein participants participate by actively monitoring trading

20

wherein some of said participants enter bids, offers, price and volume information;

- b. distributing said information to said plural workstations in essentially real time;

- c. receiving trade hits and/or lifts from said participants responding to pending bids/offers as displayed on said workstations;

- d. entering a Trading State wherein transactions are completed at one or more system defined prices;

- e. returning to the Bid/Offer State after a pre-established termination event in said Trading State;

- f. tracking and outputting consummated trades from said Trading State.

25. The method of claim 24 wherein said Trading State is further delineated into a Workdown and a Workup State.

26. The method of claim 25 wherein said Workup State is created by a single participant hitting or lifting all pending size.

27. The method of claim 26 wherein said Workdown State is created by a participant hitting or lifting less than all of said pending size.

28. The method of claim 24 wherein said trading protocol is encoded in programming logic controlling said computer system.

29. The method of claim 24, wherein said bids and offers are indicative of an item selected from the group consisting of commodities, securities, indices, and futures contracts.

30. The method of claim 24, wherein said bids and offers are indicative of a futures contract.

* * * * *